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A Preliminary Study on Basic Instructional Design of Visual Design Based on Self-Determination Theory

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The Fundamentals of Visual Design are a foundational element of modern higher education in China. Given the context of socio-economic development, there is an increasing demand for visual design professionals. In the teaching of basic visual design in universities, there is a need for substantial innovation and transformation in teaching concepts, methods, and models, as well as continuous optimization of instructional design. In practice, the comprehensive implementation of Self-Determination Theory (SDT) is crucial. By leveraging SDT, educators can stimulate students' intrinsic motivation and enhance the effectiveness of teaching. This paper focuses on the application of Self-Determination Theory in the foundational education of visual design in higher education institutions. First, it provides an overview of SDT, explaining its core concepts and fundamental principles. Then, it analyzes the current state of basic visual design education in Chinese universities, identifying existing problems and exploring the potential role of SDT in addressing these issues. Furthermore, it discusses how to integrate SDT into teaching design and practice to improve teaching outcomes and student motivation. The paper offers instructional guidance from the perspectives of fostering a sense of achievement and belonging, providing references and insights for future teaching efforts. Introducing Self-Determination Theory into the field of foundational visual design education in universities, the paper proposes corresponding instructional methods. This innovative approach, which combines theory and practice, helps to break traditional teaching models, stimulate students' interest and motivation in learning, and enhance teaching effectiveness.

Keywords: Self-Determination Theory, visual design, basic course education, teaching direction

Introduction

Research Background and Objectives

As a vital course in modern higher education in China, the Fundamentals of Visual Design play a key role in cultivating visual design talent. With the advancement of information technology and the transformation of socio-economic structures, there are higher demands on visual design professionals, particularly regarding their innovative capabilities, practical skills, and overall quality. However, there are prevalent issues in current basic visual design education in universities that hinder students' comprehensive development and the improvement of teaching effectiveness.

First, investigations reveal that many Chinese universities still employ traditional teaching concepts and methods, focusing on knowledge transmission while neglecting the personalized needs and initiative of students.

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Second, the current teaching methods are predominantly teacher-led lectures, where students passively receive knowledge, lacking opportunities for independent exploration and innovation. Classroom teaching is heavily theoretical with limited practical sessions, resulting in insufficient hands-on skills and practical application abilities for students. In this context, effectively improving the teaching methods of the Fundamentals of Visual Design course and stimulating students' motivation and creativity have become urgent issues to address.

Overview of Self-Determination Theory

Self-Determination Theory (SDT), proposed by Deci and Ryan in the 1980s, is a theory concerning human motivation and personality development. This theory emphasizes the importance of intrinsic motivation in driving individual behavior, positing that the spontaneity and autonomy of human actions are core to achieve self-development. SDT encompasses three basic needs: Competence, Relatedness, and Autonomy. Meeting these needs can significantly enhance individuals' intrinsic motivation, thereby promoting learning and development.

1. Competence refers to the feeling of effectively coping with and succeeding in challenging tasks. It boosts students' confidence in their abilities and motivates them to actively participate in learning activities.

2. Relatedness refers to the sense of connection and support individuals feel within a social group. Establishing a sense of relatedness helps students feel recognized and accepted during the learning process, thereby enhancing their motivation to learn.

3. Autonomy refers to the sense of freedom and control individuals feel when choosing and executing tasks. Fostering autonomy can encourage students to engage more proactively in learning and promote deeper knowledge internalization.

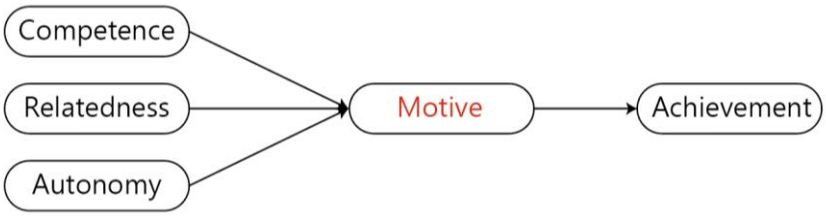

Figure 1. The relationship between the three components of self-determination theory and motivation and achievement.

Research Innovation

Self-Determination Theory (SDT) has undergone extensive development and now boasts a comprehensive theoretical framework. It presents various types of motivation and allows for dynamic observation and consideration of these different types, enabling a detailed analysis and understanding of learners' motivations. This approach has introduced new directions in motivation research.

In a special lecture by Professor Ryan on November 22, 2023, at Hanyang University's Seoul Campus, titled "Research on Motivation, Learning, & Wellness From Self-Determination Theory", it was noted that this educational psychology methodology has already been applied to several fields, including Psychotherapy & Behavior Change, Educational Practice & Learning, Organizational Behavior & Practice, Health Motivation & Adherence, Sport & Physical Activity, Parenting, Technology Design & Ethics, and Public Policy. However, integrating SDT with design education remains a novel research area.

This study systematically introduces Self-Determination Theory into the teaching of basic visual design, enriching the foundational teaching theories. By validating its effectiveness through practical application, this research represents an innovative approach to the field.

Figure 2. On November 22, 2023, Professor Ryan gave a special lecture at Hanyang University Seoul Campus on the latest developments in self-determination theory.

Methodology

Introduction to the Self-Determination Theory Model

Self-Determination Theory (SDT) is a novel motivation theory that, unlike others, focuses more on the degree of self-determination exhibited in human behavior. SDT classifies the degree of self-determination into a continuum, based on the organic dialectical meta-theory as its foundation. As shown in the model, SDT reveals the intrinsic connection between these degrees, where intrinsic regulation often determines the success of learning activities. Amotivation and intrinsic motivation occupy opposite ends of this continuum, with several different states of extrinsic motivation in between, reflecting varying degrees of internalization. These intermediate regulatory states are external regulation, introjected regulation, identified regulation, and integrated regulation.

Intrinsic motivation refers to the pleasure and satisfaction derived from participating in an activity itself.

Extrinsic motivation refers to the additional rewards that come from participating in an activity.

The model delineates these states, showing how intrinsic and extrinsic motivations influence learning and behavior.

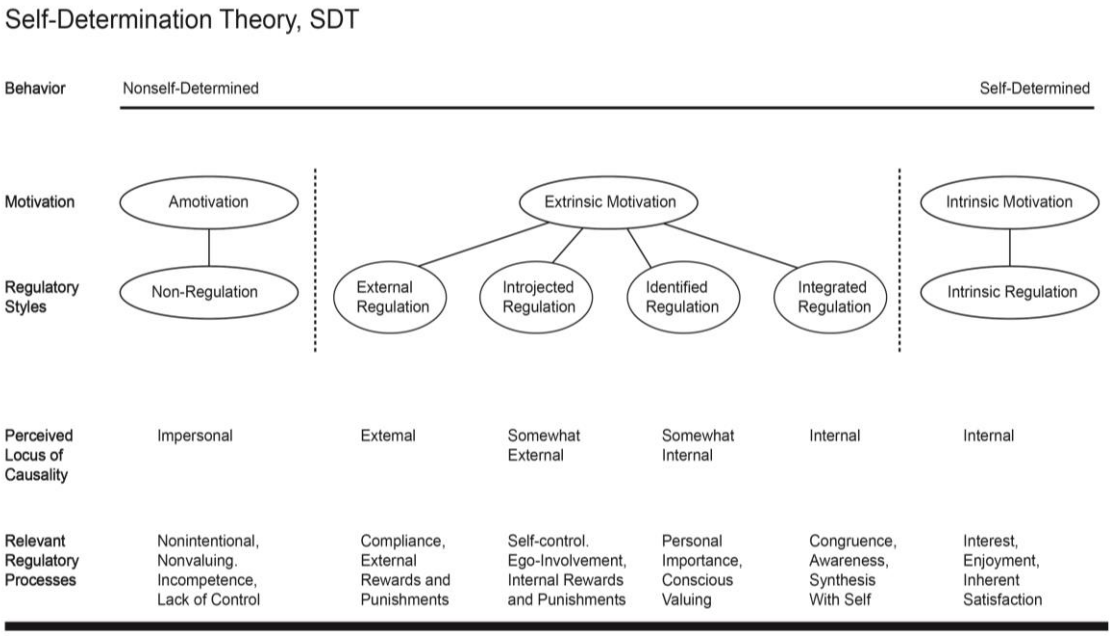

Figure 3. Self-determination theory model diagram.

In this theoretical model, behavior is divided into two main categories: “non-self-determined behavior” and “self-determined behavior”. These categories encompass various types of motivation and regulatory styles.

Firstly, on the far left side of the model is “Amotivation”, which corresponds to “Non-Regulation”. In this scenario, the individual lacks motivation and does not take any action. The perceived causality in this state is “Impersonal”, and the associated regulatory processes include a lack of intention, a sense of worthlessness, a lack of competence, and a feeling of lack of control.

Next is “Extrinsic Motivation”, which includes four different regulatory styles: External Regulation, Introjected Regulation, Identified Regulation, and Integrated Regulation. A detailed description of extrinsic motivation will be discussed in the next section with specific examples. Finally, there is “Intrinsic Motivation”, corresponding to “Intrinsic Regulation”, where individuals engage in a behavior due to their own interest, enjoyment, and inherent satisfaction. The perceived locus of causality in this case is “Internal”, and the regulatory processes include interest, enjoyment, and intrinsic satisfaction.

This model shows that as regulatory styles gradually shift from external to internal, an individual’s motivation also transitions from being externally driven to internally driven. This transition process reflects an increase in the autonomy of individual behavior, moving from external control and pressure to autonomous, voluntary behavioral choices. Self-Determination Theory emphasizes that fulfilling basic psychological needs—autonomy, competence, and relatedness—can promote higher levels of motivation internalization, thereby achieving more positive and enduring behavior.

The Significance of Self-Determination Theory in the Foundational Teaching Design of University Visual Design Courses

The education of fundamental visual design courses encompasses a wide range of content aimed at helping students grasp basic design principles and skills while incorporating Self-Determination Theory (SDT) to enhance students’ learning motivation and effectiveness.

Firstly, the design principles and elements of the visual design foundation course include the role and application of points, lines, and planes in design, the study of shapes and forms, and the basic concepts of color theory (such as hue, value, and saturation), principles of color matching, and the role of color in conveying emotions and information. Additionally, composition and layout are crucial parts of visual design, where students need to master principles of visual balance, contrast, rhythm, unity, and symmetry.

Typography and font design are other important components of the visual design foundation course. Students need to understand the classification, structure, and history of fonts and learn basic typography design techniques. Principles of typesetting are also vital; students must grasp the basics of alignment, spacing, hierarchy, and layout design.

In the area of creativity and concept development, the course will cultivate students' creative thinking abilities, guiding them to think from different perspectives and generate novel design concepts. Through sketches and model making, students can materialize their creative ideas. In the design history and theory section, students will learn about significant design movements, styles, and designers and their impact on modern design, along with fundamental design theories and aesthetic principles.

Projects and practice are critical parts of the course. Through actual design projects, students can apply their acquired knowledge to real design tasks, create, and refine their personal portfolios to showcase their design abilities and creativity.

SDT plays a crucial role in course design. By giving students certain choices, such as in design topics, tools, and methods, they can select based on their interests and needs, thus promoting their autonomy. In Project-Based Learning, students can independently choose the theme, direction, and specific implementation plan of their projects, enhancing the motivation for autonomous learning. Incremental task design helps students gradually master skills, build a sense of achievement and confidence, and improve their competence. Through regular class discussions, peer reviews, and teacher evaluations, students receive timely and effective feedback, fostering a sense of relatedness with their peers and teachers.

Feedback and evaluation play crucial roles in the course. Through classroom discussions, peer reviews, and teacher assessments, students receive timely feedback and improvement suggestions. Additionally, the course emphasizes developing students' self-assessment abilities, helping them continuously enhance their design skills. These elements form the core of the foundational visual design course, aiming to provide students with a solid design foundation and cultivate them into creative and problem-solving designers.

In current higher education, an increasing number of universities are focusing on the teaching of foundational visual design courses, exploring the concepts, methods, and models of teaching visual design fundamentals. The application of Self-Determination Theory (SDT) in university visual design education is particularly effective in stimulating students' enthusiasm and initiative for learning, as well as unlocking their intrinsic potential and motivation.

Specifically, SDT fundamentally studies human self-determined behavior, reflecting motivational processes. Therefore, incorporating SDT into the foundational teaching design of university visual design courses can shift students from passive learning to recognizing the importance of visual design studies. It enables them to plan their learning strategies according to their personal circumstances and academic goals, achieving more desirable learning outcomes.

Self-Regulation Model of Self-Determination Theory

The foundation of the chart is a pyramid that ascends from the lowest to the highest level, with each layer representing a different type of motivation, ranging from amotivation at the bottom to intrinsic motivation at the top. The bottom layer, amotivation (irregulation), indicates a lack of any motivation, where behavior is entirely aimless. Next is external regulation, where behavior is driven by the desire to avoid punishment or receive rewards, for example, "Do you get punished if you don't do A, or do you get a reward if you do A?" Moving up, intake regulation is the level where behavior is aimed at gaining external approval, "People will think I'm awesome if I do A".

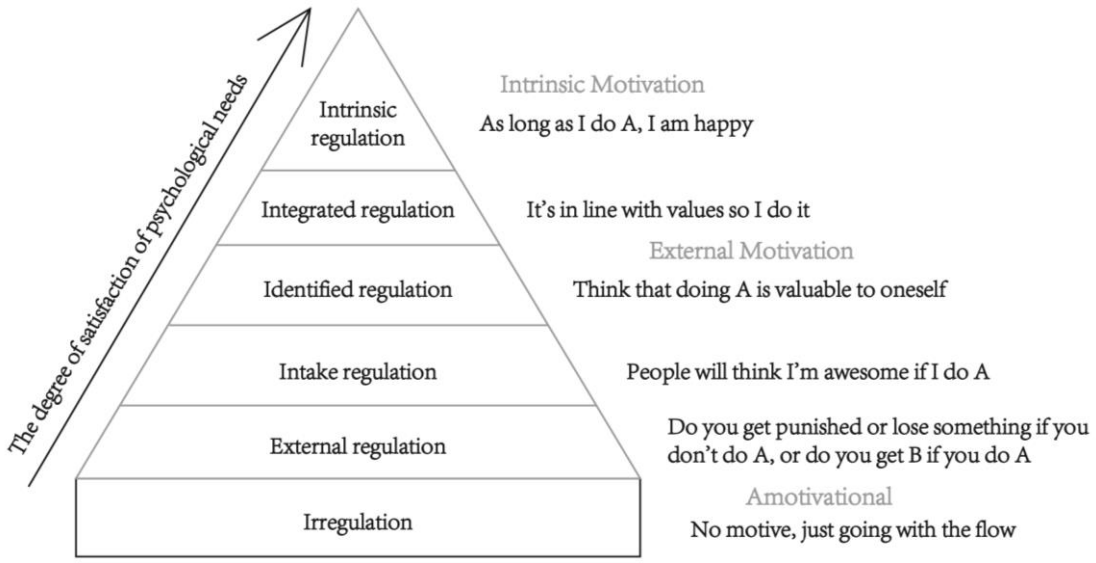

Figure 4. Self-determination theory model diagram.

Following that is identified regulation, where an individual believes that a behavior is valuable to themselves, "Thinking that doing A is valuable to oneself". Then comes integrated regulation, where behavior aligns with personal values, "It's in line with my values, so I do it". Finally, the highest level is intrinsic regulation, where the behavior itself provides satisfaction, "As long as I do A, I am happy".

This pyramid structure clearly illustrates the transition from external to internal motivation. As the degree of psychological needs satisfaction increases, the type of motivation gradually shifts from external to internal. This layered structure helps us understand how different types of motivation influence behavior and the extent to which these motivations fulfill psychological needs.

Issues in the Current Teaching Design of Basic Visual Design Courses in Universities

Professional characteristics and challenges. Visual design is a fundamental component of modern higher education, characterized by its comprehensive, systematic, and complex nature. The teaching of visual design involves multiple aspects, including but not limited to graphic design, packaging design, animation design, and web design. Additionally, visual design education has specific requirements that necessitate a focus on developing students' creative thinking and creative abilities. Students should be actively guided and encouraged to engage in independent thinking, enabling them to create personalized design works.

In the foundational teaching design of university visual communication, the primary goal is to guide students in designing works that convey information and emotions, ensuring that the end users can perceive the meaning

behind the design during its use. In the current era of network information, visual design work often requires the support of information technology. This necessitates that students possess strong technical and software operation skills to transform their ideas into tangible works.

However, there are several problems and challenges in the current teaching design of basic visual design courses in universities. The continuous development of science and technology and the diversification and enrichment of media require visual design to actively embrace the advancements in technology and media. This includes the incorporation of new technologies and tools, reflecting personalization and differentiation in visual design. Students need to showcase diverse design styles in their visual design process to better meet the real needs of different groups.

Furthermore, the development of the visual design field in China has intensified industry competition, increasing the demand for excellent designers. This situation necessitates that universities effectively optimize and innovate the foundational teaching design of visual design to cultivate more high-quality visual design talents.

Issues of students' innovative and practical abilities. Current university visual design teaching reveals that some students still lack innovative and practical abilities. Many universities continue to rely on traditional classroom teaching models, focusing primarily on theoretical knowledge. This approach fails to cultivate students' innovative abilities and does not create an open and supportive atmosphere for innovation. Consequently, students end up passively and mechanically learning from textbooks.

Moreover, universities often do not provide sufficient practical opportunities for students, preventing them from applying and verifying their theoretical knowledge in practice. This lack of practical experience leaves students unable to understand the correct use of knowledge or accumulate valuable experience, resulting in confusion when they enter the workforce.

To address these issues, it is crucial to optimize and innovate the foundational teaching design of visual design courses in universities. In addition to focusing on students' mastery of theoretical knowledge, equal emphasis should be placed on cultivating their innovative and practical abilities. This approach will help build students' comprehensive qualities and better prepare them for future professional challenges.

Discussion

Visual design is a fundamental course in modern higher education, playing a crucial role in supplying high-quality visual design talents to support China's socio-economic development and industry growth. To achieve optimal outcomes in educational practice, it is essential to incorporate Self-Determination Theory (SDT) into the foundational teaching design of visual design. This integration aims to stimulate students' intrinsic motivation, enhance their autonomous learning capabilities, and achieve better results in university visual design education.

Competence and Key Elements of Teaching Design in Self-Determination Theory

In the process of foundational teaching design for visual design in universities, it is important to grasp the key elements of inquiry-based learning under SDT. Inquiry-based learning can be seen as a simulation of scientific research activities involving two main components. First, during the teaching period, the focus should be on student autonomy, creating an inquiry-based learning environment with adequate teaching instruments and resources. A specific knowledge theme should be identified, and teaching materials should be arranged accordingly. This approach helps reduce the pressure and burden felt by students, allowing them to freely search for necessary information and test their ideas through various methods.

Second, providing appropriate guidance and support during the teaching process helps students clarify their inquiry directions. The basic principle is for students to independently plan their knowledge acquisition based on their circumstances and the subject's characteristics, thereby fully stimulating their intrinsic motivation through the teaching tasks.

For example, in the foundational teaching design of university visual design courses, teachers can introduce competition and cooperation mechanisms. This can involve group competitions and team collaboration activities to continuously stimulate students' learning potential and creativity. These mechanisms promote mutual progress and create a motivating atmosphere. Additionally, timely feedback and evaluation are crucial. Teachers should focus on students' performance in competitions and collaborations, providing targeted evaluative guidance based on their observations. This guidance should address not only the evaluation of students' design works but also the various issues encountered during the learning process. Such evaluations help students understand their learning progress and challenges, allowing for effective adjustments to their learning strategies and enhancing overall learning outcomes.

Furthermore, the development of an information-based platform can facilitate the collection of students' design works and learning achievements. This platform can offer quantitative and qualitative analyses, providing students with comprehensive feedback.

Relatedness and Cooperative Elements in Teaching Design

Incorporating SDT into the foundational teaching design of visual design in universities places significant emphasis on the theme of cooperation, which is closely linked to constructivist learning psychology. Learning is not a passive process but an active exploration where learners identify and solve problems based on their existing knowledge, thus gaining new knowledge or revising previous knowledge to build their knowledge systems.

To leverage this aspect of SDT in the current teaching design of university visual design courses, a dynamic feedback system should be established. This system would track students' progress and challenges, providing a realistic view of their learning status and offering tailored guidance and support. An online information platform can be developed to organize relevant teaching materials for visual design, supporting students' autonomous learning. Students can identify problems and needs based on their knowledge and engage in self-directed learning on the platform.

Enabling open communication and comment functionalities allows students to share and discuss their knowledge, correcting past misconceptions, and supplementing incomplete knowledge. This collaborative environment fosters learning motivation, professional competence, and a comprehensive knowledge framework among students.

Conclusion

In summary, the reform of modern education has set new requirements for the foundational teaching of visual design in universities. It is essential to effectively harness students' initiative, stimulating their enthusiasm and active participation. By encouraging students to independently analyze, discuss, and think critically, a comprehensive knowledge framework can be established, enhancing their innovative and practical abilities.

Incorporating Self-Determination Theory (SDT) into the foundational teaching design of visual design is beneficial for improving teaching effectiveness and elevating educational standards. This approach supports students' better growth and development. In practice, it is crucial to accurately understand the content of SDT,

the foundational elements of visual design courses, and the needs of the student body, ensuring targeted optimization and improvement.

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